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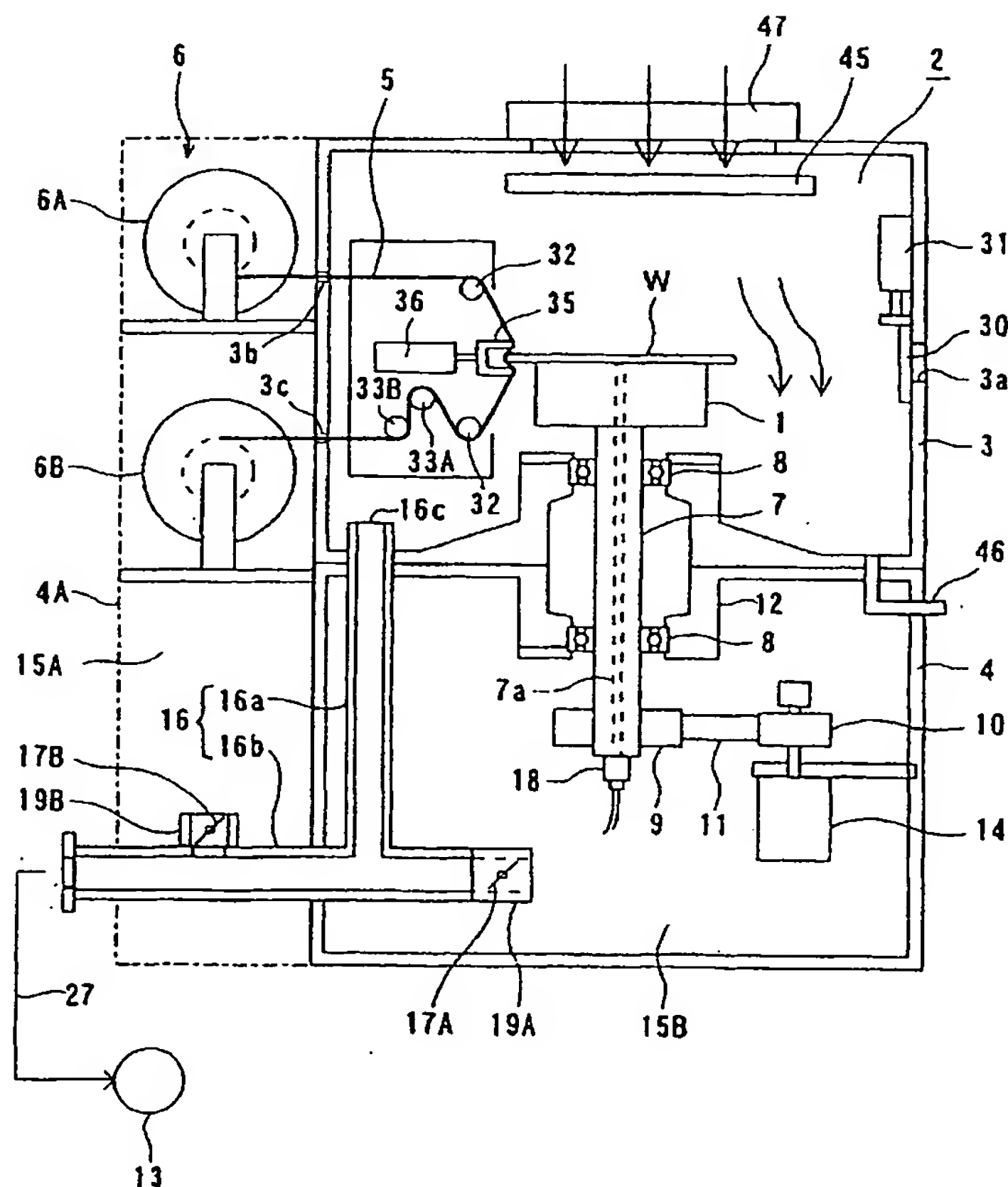
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(54) Title: **POLISHING APPARATUS AND SUBSTRATE PROCESSING APPARATUS**



(57) Abstract: The present invention relates to a polishing apparatus for removing surface roughness produced at a peripheral portion of a substrate, or for removing a film formed on a peripheral portion of a substrate. The polishing apparatus includes a housing (3) for forming a polishing chamber (2) therein, a rotational table (1) for holding and rotating a substrate (W), a polishing tape supply mechanism (6) for supplying a polishing tape (5) into the polishing chamber (2) and taking up the polishing tape (5) which has been supplied to the polishing chamber (2), a polishing head (35) for pressing the polishing tape (5) against a bevel portion of the substrate (W), a liquid supply (50) for supplying a liquid to a front surface and a rear surface of the substrate (W), and a regulation mechanism (16) for making an internal pressure of the polishing chamber (2) being set to be lower than an external pressure of the polishing chamber (2).



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